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ABSTRACT

The attitudes of administrators in a metropolitan area toward starting programs in applied and agricultural occupations and other vocational areas were studied in order to determine their willingness in promoting the programs. The sample consisted of 120 school administrators from the city of Chicago and contiguous suburbs. Data were collected using an opinionnaire consisting of 41 items with a 5-point scale provided for the response. Analyses were used to compare the attitudes of the suburban and city administrators toward the various areas of vocational education, and to determine the frequency with which the administrators responded to the various response categories for each item on the instrument. It was concluded that: (1) Schools in the area can be identified in which administrative staff are receptive to the development of vocational programs, (2) Administrators have a generally positive attitude toward the development of programs in agriculture, and (3) Additional information regarding applied biological and agricultural occupations should be supplied to the administrators. A related report is available as VT 016 143 in this issue. (GEB)

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ATTITUDES OF METROPOLITAN CHICAGO ADMINISTRATORS TOWARD APPLIED BIOLOGICAL AND AGRICULTURAL OCCUPATIONS PROGRAMS

by

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Research Report

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Attitudes of Metropolitan Chicago Administrators Toward

Applied Biological and Agricultural Occupations

INTRODUCTION

This research study was initiated to determine the feasibility of implementing programs in applied biological and agricultural occupations in the greater Chicago metropolitan area high schools. This phase of the study reports the administrative attitudes toward vocational education with emphasis on applied biological and agricultural occupations.

Reports have indicated that there exists the need for programs in applied biological and agricultural occupations in the high schools throughout the state of Illinois. According to Hemp (1969), "most educators and horticulture industry people recognized the need to train workers and to prepare high school students for careers in ornamental horticulture. Opportunities for employment in occupations requiring knowledge and skills in ornamental horticulture are prevalent in most sections of Illinois especially in the urban and suburban areas of the state."

It was assumed that the observation made by Hemp holds true for the various applied biological and agricultural occupational areas; however, one aspect of the present study was to determine the availability of occupational opportunities in the greater Chicago metropolitan area.

Before programs in applied biological and agricultural occupations can be implemented in the high schools, the school administrators must first perceive the needs for the programs and indicate their willingness to assist in promoting the programs. It was felt that if program planners operate completely in the abstract, concentrating only on logical sequences, the plan is likely to be relegated to the waste basket or to a shelf. Kemmer (1954) has stated that "the attitudes individuals and groups have about various aspects of their world are probably more determinative of behavior than mere cognitive understanding

of it." It was therefore thought necessary to determine the attitudes of school administrators towards the offering of programs in applied biological and agricultural occupations.

PROCEDURES

The procedures used to select and delimit the population, develop the instrument, collect the data, and the nature of analysis are included in this section.

Research Population

Areas from which the population was identified were from the city of Chicago and contiguous suburbs. The population consisted of all the secondary superintendents, assistant superintendents, principals and assistant principals within the designated area. From this population, one hundred and twenty subjects were identified. It was felt that the greater the proportion of the administrators involved in the study, the more representative would be their opinions regarding applied biological and agricultural occupations. Thus, all administrators identified were included in the sample.

Instrumentation

Considerable library search was conducted in an effort to identify an instrument which could be used in collecting the data essential for determining the attitudes of administrators toward applied biological and agricultural occupations. No appropriate instrument was found. Thus, a list of items was developed from which the researchers refined and delimited the items to be included. These items were reviewed by consultants consisting of an extension specialist in urban development, as well as consultants in applied biological and agricultural occupations. Each item was judged on the basis of clarity, scorability and ease of response. In light of the criticisms and suggestions from the consultants, some items were revised while others were consolidated or discarded.

The final instrument (opinionnaire; Appendix II-A) consisted of 41 items. A five point scale ranging from strongly agree to strongly disagree was provided for response. The opinionnaire was designed to obtain the opinion of the administrator with a minimum expenditure of his time. Simple check-off and numerical answers were used to facilitate responses.

The opinionnaire and cover letter (Appendix II-B) with a stamped self-addressed envelope were mailed to each of the 120 administrators identified to be included in the study. A follow-up letter (Appendix II-C) was mailed to those who had not responded within two weeks after the first mailing.

Of the 120 opinionnaires sent 87 (72.5%) were completed and returned. As shown in Table II-1, a higher percentage of suburban than intercity administrators returned the opinionnaires; the percentages were 88.0 and 61.4 respectively.

Table II-1. Distribution of Population and Respondents by Location of School

Area	Number Identified	Percentage of Total Population	Number of Opinionnaires Returned	Percentage Returned
Suburban	50	41.7	44	88.0
City	70	58.3	43	61.4
TOTAL	120	100.0	87	72.5

Statistical Analysis

Appropriate analyses were used to (1) compare the attitudes of the suburban and city administrators toward the various areas of vocational education and (2) to determine the frequency with which the administrators responded to the various response categories for each item on the instrument. One-way analysis of variance (Winer 1962) was employed to compare the city and suburban administrator's attitudes while simple summations were used to obtain the frequencies.

RESULTS

The principle objective of this phase of the study was to establish a baseline of data regarding the attitude of administrators in the metropolitan area of Chicago toward vocational education with emphasis on applied biological and agricultural occupations. It was anticipated that the results of obtaining these data would allow program implementors to be cognizant of the attitudes with which they must deal in order to establish programs in applied biological and agricultural occupations.

The areas for which attitudes were obtained were 1) applied biological and agricultural occupations, 2) home economics occupations, 3) industrial oriented occupations, 4) business occupations, 5) health occupations, 6) personal and public service occupations, and 7) vocational education in general. These areas will be discussed in turn.

In order to compute a mean (average) score for each of the items a weight was given for the responses as follows:

Strongly Agree = 1

Agree = 2

Undecided = 3

Disagree = 4

Strongly Disagree = 5

These weights are identical to those shown on the instrument included in Appendix II-A.

When the responses of the suburban and city administrators were compared, no significant differences were observed for any of the 41 items on the opinionnaire. Thus, in discussing the results, the two groups will generally be grouped as it may be assumed that they hold similar attitudes toward all areas of vocational education education for which data were collected.

The applied biological and agricultural occupations area was stressed in comparison to other areas of vocational education. It was the opinion of the researchers that some items concerning other areas should be included to give an indication of administrator attitude regarding the total vocational education scene.

Applied Biological and Agricultural Occupations

As shown in Tables II-2 and II-3 both positive and negative attitudes toward applied biological and agricultural occupations exist among the administrators of secondary schools in the metropolitan area of Chicago. Hence, the average of the responses for each item tended to be somewhere near the undecided range or a mean of three.

The response to Item 1 indicates that nearly one-third (29.5%) of the respondents felt that programs in applied biological and agricultural occupations would be of great value in their school system. About one-fourth (27.3%) were undecided while over two-fifths (43.3%) of the respondents indicated that they either disagree or strongly disagree with the statement which indicated that such programs would be of value in their school systems. Other items which indicate the administrators' evaluation of the value of programs in applied biological and agricultural occupations include 3, 26, 28, and 31. Here one-fourth (25.6%) indicated that administrating a program in agriculturally related occupations would fascinate them, nearly one-third (31.5%) indicated that they would do everything possible to initiate courses related to lawn care and maintenance, and nearly one-half (47.2%) indicated that marketing and distribution of products such as fruits and vegetables could be taught successfully in their school system. While it is conceivable that the administrators had the attitude that courses could be taught successfully, it is significant to

Table II-2. Comparison of the Attitude of City and Suburban Administrators Toward Programs in Applied Biological and Agricultural Occupations

Item No.	Item	Mean		F Ratio
		City	Suburban	
1	Programs in applied biological and agricultural occupations would be of great value in this school.	3.27	3.13	.416
2	I would oppose the offering of courses related to agricultural occupations in this school.	3.17	3.38	.441
3	Administering a program in agriculturally related occupations would fascinate me.	3.29	3.34	.831
4	Under no conditions would I get involved in programs in applied biological and agricultural occupations.	3.52	3.83	1.553
5	If additional staff were provided, I would be willing to promote programs in applied biological and agricultural occupations.	2.81	2.60	.899
7	If enough students requested to participate in agriculturally related occupations programs I would look into the possibility of including it in the curriculum.	2.12	2.05	.123
8	With some effort it is possible to make staff reallotments in order to provide a teacher for elective courses in agriculturally related occupations.	3.61	3.88	1.225
11	My present staff cannot be readjusted in order to offer courses in applied biological and agricultural occupations.	2.55	2.30	.884
13	A program in agriculturally related occupations would help improve the overall high school program.	3.08	3.18	.187
17	Programs related to applied biological and agricultural occupations are a definite threat to the overall high school program.	4.16	4.32	.790

Table II-2. (con't)

Item No.		Mean City	Mean Suburban	F Ratio
18	Properly planned and administered courses in applied biological and agricultural occupations could help in making high school learning more practical.	2.39	2.48	.216
19	A program in agriculturally related occupations could be used only if the school employs qualified teachers, or retrains present teachers.	2.04	2.17	.578
23	I will be willing to approve study leave for any of the staff members who desire additional education to prepare themselves to teach courses in applied biological and agricultural occupations.	2.89	2.17	1.305
24	A program in agriculturally related occupations would help many students become socially adjusted and useful citizens.	2.79	2.68	.355
26	Courses related to lawn care and maintenance would fulfill a need in this school and I would do everything possible to initiate them.	3.04	3.28	1.031
27	Students in general are not interested in agriculturally related subjects; therefore, this program would probably fail due to inadequate student participation.	2.56	2.45	.225
28	Training in the marketing and distribution of products such as fruits and vegetables could be taught successfully in this school system.	2.83	2.59	1.585
29	Programs in applied biological occupations would complement and reinforce subjects rather than compete with them.	2.56	2.31	1.694
30	Courses in applied biological and agricultural occupations would have many desirable features, but the disadvantages outnumber the advantages.	3.19	2.97	1.356

Table II-2. (con't)

Item No.	Item	Mean		F Ratio
		City	Suburban	
31	I would recommend a program in agriculturally related occupations to my superintendent or to the board of education if the need for such a program is ascertained.	2.60	2.45	.443
41	I would like more information regarding program development in applied biological and agricultural occupations.	2.74	2.37	1.873

Table II-3. Frequency of Responses by Items Made by City and Suburban Administrators About Programs in Applied Biological and Agricultural Occupations

Item No.	Item		Response: Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1	Programs in applied biological and agricultural occupations would be of great value in this school.	Suburban	2	11	11	12	4
		City	1	12	13	17	5
2	I would oppose the offering of courses related to agricultural occupations in this school.	Suburban	3	5	11	16	5
		City	7	10	9	12	10
3	Administering a program in agriculturally related occupations would fascinate me.	Suburban	1	7	14	10	6
		City	2	12	10	18	6
4	Under no condition would I get involved in programs in applied biological and agricultural occupations.	Suburban	1	1	13	14	11
		City	6	3	10	18	11
5	If additional staff were provided, I would be willing to promote programs in applied biological and agricultural occupations.	Suburban	4	13	16	3	2
		City	3	19	13	8	4
7	If enough students requested to participate in agriculturally related occupations programs I would look into the possibility of including it in the curriculum.	Suburban	9	22	5	3	0
		City	12	28	2	5	3

Table II-3. (con't)

Item No.	Item		Response: Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
8	With some effort it is possible to make staff reallotments in order to provide a teacher for elective courses in agriculturally related occupations.	Suburban	0	6	6	15	13
		City	1	11	7	17	13
11	My present staff cannot be readjusted in order to offer courses in applied biological and agricultural occupations.	Suburban	9	18	6	6	1
		City	15	12	7	10	5
13	A program in agriculturally related occupations would help improve the overall high school program.	Suburban	0	9	19	8	4
		City	2	17	9	17	4
17	Programs related to applied biological and agricultural occupations are a definite threat to the overall high school program.	Suburban	0	0	3	21	16
		City	2	1	6	18	22
18	Properly planned and administered courses in applied biological and agricultural occupations could help in making high school learning more practical.	Suburban	2	20	15	3	0
		City	7	25	10	5	2

Table II-3. (con't)

Item No.	Item		Response: Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
19	A program in Agriculturally Related Occupations could be used only if the school employs qualified teachers, or retrains present teachers.	Suburban	9	18	10	3	0
		City	11	26	9	2	0
23	I will be willing to approve study leave for any of the staff members who desire additional education to prepare themselves to teach courses in applied biological and agricultural occupations.	Suburban	4	13	18	3	2
		City	2	17	16	8	4
24	A program in agriculturally related occupations would help many students become socially adjusted and useful citizens.	Suburban	1	14	19	4	0
		City	1	18	20	6	2
26	Courses related to lawn care and maintenance would fulfill a need in this school and I would do everything possible to initiate them.	Suburban	1	8	15	11	5
		City	2	17	14	9	7
27	Students in general are not interested in agriculturally related subjects; therefore, this program would probably fail due to inadequate student participation.	Suburban	4	17	16	3	0
		City	10	14	9	10	2

Table II-3. (con't)

Item No.	Item		Response				
			Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
28	Training in the marketing and distribution of products such as fruits and vegetables could be taught successfully in this school system.	Suburban	3	18	13	7	0
		City	1	20	17	6	4
29	Programs in applied biological occupations would complement and reinforce subjects rather than compete with them.	Suburban	2	24	10	2	0
		City	2	29	9	4	4
30	Courses in applied biological and agricultural occupations would have many desirable features, but the disadvantages outnumber the advantages.	Suburban	0	9	22	8	0
		City	3	9	12	22	1
31	I would recommend a program in agriculturally related occupations to my superintendent or to the board of education if the need for such a program is ascertained.	Suburban	4	20	8	5	1
		City	4	28	5	5	6
41	I would like more information regarding program development in applied biological and agricultural occupations.	Suburban	7	17	5	8	0
		City	8	19	3	11	6

note that nearly one third of the respondents indicated that courses in lawn care and maintenance would fulfill a need in their school and that they would do "everything possible to initiate them."

When asked about their willingness to support a program in applied biological and agricultural occupations from a negative point of view (items 2, 4, and 30), over one-fourth (28.4%) of the respondents indicated that they would oppose the offering of courses related to agricultural occupations, one-eighth (12.5%) indicated that under no conditions would they get involved in programs in applied biological and agricultural occupations, while nearly one-fourth (24.4%) indicated that the disadvantages of such a program outnumber the advantages. Thus, it would appear that approximately one-fourth of the respondents are opposed to offering programs in applied biological and agricultural occupations. However, nearly one-half (48.9%) indicated that they would not oppose such programs being offered in their school system.

Because the allocation of staff is a key to the offering of new programs, the researchers felt that it was important to include aspects concerning staffing in the opinionnaire. Items 5, 8, 11, 19, and 23 reflect attitudes toward staffing. Nearly one-half (47.1%) of the respondents indicated that if additional staff were provided they would be willing to promote programs in applied biological and agricultural occupations; one-fifth (20.2%) indicated that with some effort it would be possible to make staff reallotments in order to provide a teacher for elective courses in agriculturally related occupations; three-fifths (60.67%) responded that their present staff could not be readjusted in order to offer courses in applied biological and agricultural occupations; nearly three-fourths (72.7%) indicated that such programs could be offered only if the school employed qualified teachers or retained those already

qualified for such a position; and over two-fifths (41.4%) indicated that they would approve a study leave for any staff member who desired to prepare to teach courses in applied biological and agricultural occupations.

Among the reasons theorized as causes for the absence of programs in applied biological and agricultural occupations in the metropolitan area of Chicago was that administrators did not believe their students were interested in such programs. Hence, items 7 and 27 were included. While four-fifths (80.7%) of the respondents indicated that they would look into the possibility of including agriculturally related occupations in the curriculum if enough students requested such a program, less than one-fifth (17.6%) indicated that they felt that enough student interest existed to keep a program in this area from failing due to inadequate student participation.

School officials are usually concerned about the total school curriculum and how each program relates to the total program. Thus, items 13, 17, 18, 24, and 29 were included to obtain an indication of the attitudes of metropolitan Chicago school administrators toward applied biological and agricultural occupations as part of the total school program.

It was the opinion of nearly one-third (31.5%) of the respondents that a program in agriculturally related occupations would help improve their overall high school program. While a few (3.4%) indicated that such a program would be a definite threat to the overall high school program, three-fifths (60.7%) indicated that such programs could help in making high school learning more practical, two-fifths (40.0%) thought that such programs would help many students become socially adjusted and useful citizens, and two-thirds (66.3%) indicated that such programs would complement and reinforce subjects rather than compete with them.

The administrators were asked (item 41) to indicate whether or not they would like more information regarding program development in applied biological and agricultural occupations. Three-fifths (60.7%) indicated that they would like to receive information of this kind. Thus, it would appear that the administrators in the metropolitan area of Chicago are open to learning more about programs in applied biological and agricultural occupations.

Home Economics Occupations

Measures of attitudes of secondary school administrators in the metropolitan area of Chicago concerning student interest, effect on school program, the staffing situation, and need for additional information were obtained for home economics occupations. Data concerning attitudes in these areas were obtained from items 9, 15, 21, and 38 of the instrument as shown in Tables II-4 and II-5. The mean of the opinionnaire items concerning home economics education indicated that most administrators were favorable toward this area of vocational education. The mean score for the four items was only slightly over a value of two or agree on the response scale. This attitude was observed in the frequency of favorable responses in Table II-5. Nearly three-fourths (73.0%) of the respondents indicated that there were enough interested students to warrant offering a program in home economics occupations. Almost all (93.3%) reported that a program in home economics occupations would help to improve an overall high school program; approximately two-thirds (62.2%) felt that they had sufficient staff to teach courses in home economics occupations, while about three-fourths (76.8%) indicated the desire for more information regarding program development in home economics education.

Data were not collected concerning the number of schools that were offering programs in home economics occupations. Thus, it is not known how

Table II-4. Comparison of the Attitude of City and Suburban Administrators Toward Programs in Home Economics Occupations

Item No.	Item	Mean		F Ratio
		City	Suburban	
9	There are enough interested students in this school system to warrant initiating a program in home economics occupations.	2.17	2.02	.529
15	A program in some aspect of home economics occupations helps to improve an overall high school program.	1.92	1.78	.800
21	We have sufficient numbers of qualified staff to teach courses in home economics occupations.	2.49	2.61	.214
38	I would like more information regarding program development in home economics education.	2.30	2.03	1.372

Table II-5. Frequency of Responses by Items Made by City and Suburban Administrators Concerning Programs in Home Economics Occupations

Item No.	Item		Response: Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
9	There are enough interested students in this school system to warrant initiating a program in home economics occupations.	Suburban	11	19	10	1	0
		City	12	23	8	3	2
15	A program in some aspect of home economics occupations helps to improve an overall high school program.	Suburban	10	30	1	0	0
		City	14	30	2	1	2
21	We have sufficient numbers of qualified staff to teach courses in home economics occupations.	Suburban	6	18	5	10	2
		City	11	21	3	10	4
38	I would like more information regarding program development in home economics education.	Suburban	9	22	4	3	0
		City	11	21	3	6	3

many of the schools reporting a sufficient number of staff members qualified to teach home economics occupations were in fact offering programs in home economics.

Industrial Oriented Occupations

It was hypothesized that the industrial nature of the metropolitan area of Chicago would result in a favorable attitude toward programs in industrial oriented occupations. This hypothesis was supported by the data presented in Tables II-6 and II-7. City and suburban administrators did not differ significantly in their opinions concerning industrial oriented occupations as indicated by the nonsignificant F-ratio in Table II-6.

Attitudes concerning curricular offerings, qualified staff, and the desire for more information were obtained (items 10, 22, and 39 respectively). The frequencies of response to each of these items are presented in Table II-7. Here it was noted that of the respondents nearly all (95.5%) indicated that they would look into offering programs in industrial oriented occupations if the needs for the program were ascertained; two-thirds (65.6%) indicated that they had sufficient number of staff members to organize and teach courses in industrial arts, and three-fourths (75.3%) indicated that they would like more information regarding program development in industrial arts education.

Business Occupations

Business occupations, while not represented extensively on the opinionnaire, received a favorable response from the administrators on the two opinionnaire items. The responses to these items (numbers 20 and 40) are presented in Tables II-8 and II-9.

Nearly all (94.4%) of the respondents indicated that courses related to office occupations, such as stenography and secretarial work, would not consume

Table II-6. Comparison of the Attitude of City and Suburban Administrators Toward Programs in Industrial Oriented Occupations

Item No.	Item	Mean		F Ratio
		City	Suburban	
10	If the needs are ascertained for industrial occupations in this school I would be willing to look into the possibility of including it in the curriculum.	1.57	1.73	1.256
22	We have a sufficient number of qualified staff members to successfully organize and teach courses in industrial arts occupations.	2.41	2.71	1.185
39	I would like more information regarding program development in industrial arts education.	2.34	2.11	1.007

Table II-7. Frequency of Responses by Items Made by City and Suburban Administrators Concerning Programs in Industrial Oriented Occupations

Item No.	Item		Response: Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
10	If the needs are ascertained for industrial occupations in this school I would be willing to look into the possibility of including it in the curriculum.	Suburban	14	24	1	1	0
		City	24	23	1	1	0
22	We have a sufficient number of qualified staff members to successfully organize and teach courses in industrial arts occupations.	Suburban	6	19	1	11	4
		City	13	21	1	10	4
39	I would like more information regarding program development in industrial arts education.	Suburban	7	23	3	4	0
		City	10	21	4	6	3

Table II-8. Comparison of the Attitude of City and Suburban Administrators Toward Programs in Business Occupations

Item No.	Item	Mean		F Ratio
		City	Suburban	
20	Courses related to office occupations, such as stenography and secretarial work, would consume too much of the student's time which is needed for other academic areas.	4.39	4.32	.168
40	I would like more information regarding program development in distributive occupations.	2.52	2.16	2.294

Table II-9. Frequency of Responses by Items Made by City and Suburban Administrators Toward Programs in Business Occupations

Item No.	Item		Response				
			Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
20	Courses related to office occupations, such as stenography and secretarial work, would consume too much of the student's time which is needed for other academic areas.	Suburban	1	2	0	18	20
		City	1	0	1	24	23
40	I would like more information regarding program development in distributive occupations.	Suburban	6	23	4	4	0
		City	9	18	5	9	3

too much of the student's time needed for academic areas. Over two-thirds (69.1%) of the respondents indicated that they would like more information regarding program development in distributive occupations.

Health Occupations

As shown in Tables II-10 and II-11 a single item was included on the opinionnaire related to health occupations. Health occupations, a new concept for most secondary administrators, received a favorable response from the respondents with nearly all (92.3%) responding that they felt that offering training in occupations related to health would be appropriate in their school system.

Personal and Public Service Occupations

A single item concerning the attitude of administrators toward personal and public service occupations was included on the opinionnaire. The data resulting from the summarization of the responses are included in Tables II-12 and II-13. As was the case with health occupations, the concept of the secondary schools offering training in the personal and public service occupations is a relatively recent concept. However, nearly three-fifths (58.4%) of the respondents indicated that their school system could provide the student with training in personal and public service occupations, such as policemen, social workers, and firemen.

Table II-10. Comparison of the Attitude of City and Suburban Administrators Toward Programs in Health Occupations

Item No.	Item	Mean		F Ratio
		City	Suburban	
6	Offering training in occupations related to health would be appropriate in this school system.	1.67	1.40	2.542

Table II-11. Frequency of Responses by Items Made by City and Suburban Administrators Toward Programs in Health Occupations

Item No.	Item		Response				
			Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
6	Offering training in occupations related to health would be appropriate in this school system.	Suburban	26	12	2	0	0
		City	25	20	1	1	2

Table II-12. Comparison of the Attitude of City and Suburban Administrators Toward Programs in Personal and Public Service Occupations

Item No.	Item	Mean		F Ratio
		City	Suburban	
14	This school system could provide the student with training personal and public service, such as policemen, social workers, and firemen.	2.75	2.41	2.43

Table II-13. Frequency of Responses by Items Made by City and Suburban Administrators Concerning Programs in Personal and Public Service Occupations

Item No.	Item		Response				
			Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
14	This school system could provide the student with training in personal and public service, such as policemen, social workers, and firemen.	Suburban	6	20	8	6	1
		City	2	24	8	12	2

Vocational Education

In addition to obtaining an assessment of the attitudes of administrators toward the various specific areas of vocational education, attitudes concerning aspects of the total concept of vocational education were sought. Specific aspects sought included the overall value of vocational education, the cost of vocational education, and the addition of elective courses to the curricula.

To ascertain the attitudes of administrators toward the value of vocational education items 16, 25, and 33 were included on the opinionnaire. As shown in Tables II-14 and II-15 most administrators felt that programs in vocational education have an effect on the school, thought vocational education would work in their school and considered vocational education necessary in addition to general education.

Items 32, 34, and 35 concerned the attitudes of the administrators regarding the cost of vocational education. Here, 61.4 percent of the respondents held the attitude that the cost of administering vocational education programs was negligible when compared to the returns from the salable skills that students could develop; over one-half (53.5%) of the respondents did not consider funds to be limited for textbooks, supplies or equipment that would be necessary for the inclusion of additional vocational electives in the curriculum; and nearly seven-eights (84.1%) of the respondents indicated that their communities would not frown on spending additional money on vocational education.

In regard to additional electives (items 36 and 37), approximately one-half of the respondents had the opinion that additional electives would not increase the student-teacher ratio excessively and could be added without eliminating electives already in existence.

Table II-14. Comparison of the Attitude of City and Suburban Administrators Toward Programs in Vocational Education

Item No.	Item	Mean		F Ratio
		City	Suburban	
16	Programs in vocational occupations have little or no effect on an overall high school program.	4.35	4.37	.016
25	Vocational programs designed to prepare students for occupations is a marvelous idea, but it probably would not work in this school system.	4.02	4.18	.516
32	The cost of administering programs in vocational education are negligible when compared with the returns from the salable skills that the students would develop.	2.38	2.48	.249
33	Programs in vocational education are not necessary since the students are learning enough about vocational occupations in the general courses.	4.19	4.20	.007
34	Limited funds for textbooks, supplies and equipment will not permit the inclusion of additional electives in the curriculum.	3.46	3.18	1.528
35	Our community would frown on spending additional money on vocational-type education.	3.96	4.10	.704
36	Additional electives would increase the student-teacher ratio in the required subjects which is already too high.	2.98	3.41	3.847
37	The only way I could allow for additional electives would be to eliminate some of the present ones and this would not be accepted.	3.31	3.23	.143

Table II-15. Frequency of Responses by Items Made by City and Suburban Administrators Concerning Programs in Vocational Education

Item No.	Item		Response				
			Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
16	Programs in vocational occupations have little or no effect on an overall high school program.	Suburban	0	0	2	22	17
		City	1	1	1	23	23
25	Vocational programs designed to prepare students for occupations is a marvelous idea, but it probably would not work in this school system.	Suburban	2	0	2	21	15
		City	3	2	3	24	17
32	The cost of administering programs in vocational education are negligible when compared with the returns from the salable skills that the students would develop.	Suburban	4	21	8	6	1
		City	7	22	14	4	1
33	Programs in vocational education are not necessary since the students are learning enough about vocational occupations in the general courses.	Suburban	0	0	5	22	13
		City	0	2	3	27	16
34	Limited funds for textbooks, supplies and equipment will not permit the inclusion of additional electives in the curriculum.	Suburban	2	8	11	15	2
		City	2	8	9	14	5

Table II-15. (con't)

Item No.	Item		Response: Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
35	Our community would frown on spending additional money on vocational-type education.	Suburban	0	0	7	22	11
		City	2	1	4	31	10
36	Additional electives would increase the student-teacher ratio in the required subjects which is already too high.	Suburban	1	5	11	18	2
		City	2	14	10	19	1
37	The only way I could allow for additional electives would be to eliminate some of the present ones and this would not be accepted.	Suburban	1	8	12	17	1
		City	4	8	7	27	2

SUMMARY AND CONCLUSIONS

This section includes a summary of the procedures, reports, findings, and presents conclusions from this phase of the study.

Summary

The primary purpose of this phase of the research was to ascertain the attitudes that administrators in the metropolitan area of Chicago held toward the various areas of vocational education with emphasis on applied biological and agricultural occupations. In order to accomplish this task, an opinionnaire, developed by the researchers, was mailed to all secondary school administrators in the city of Chicago and 46 of the contiguous suburbs. Frequency counts and analyses of variance were employed to summarize and compare the attitudes held by suburban and city administrators.

Results and Discussion

A summary and discussion of the results concerning the attitudes of administrators toward the various areas of vocational education are included in this section.

Applied Biological and Agricultural Occupations. Both positive and negative attitudes were exhibited toward programs in applied biological and agricultural occupations by the administrators who responded to the opinionnaire. The researchers theorized that the primary cause for the negative attitudes was due to a misconception about the broader concept of agricultural occupations. This theory was supported by the fact that a higher percentage of the respondents indicated that they would do everything possible to initiate a course in lawn care and maintenance than thought that courses related to agriculture had value in their school system.

Another cause for the absences of programs in applied biological and agricultural occupations in the metropolitan area, which could well be confused with the misconception of the scope of agriculture is that administrators did not feel that enough students would be available to justify offering such programs. This was supported by the research which showed that while four-fifths of the administrators would look into offering programs in applied biological and agricultural occupations if enough students requested it, less than one-fifth thought that enough students were interested in agriculturally related subjects to keep a program from failing due to inadequate student participation.

In relation to the total school program, a majority of the respondents thought that courses related to agriculture could help make high school learning more practical, and that such courses would complement and reinforce academic subjects rather than compete with them.

Based on the fact that three-fifths of the respondents indicated that they would like to receive more information regarding program development in applied biological and agricultural occupations it would appear that administrators in the metropolitan area of Chicago were open to learning more about programs related to agriculture. Hence, it may be assumed that these administrators would be willing to investigate the possibility of offering programs in applied biological and agricultural occupations in their school systems. Thus, the task for the program developers is to demonstrate to the administrators that there are students interested in applied biological and agricultural occupations and to show the administrators how programs can be implemented to meet the needs of the students in the metropolitan area of Chicago.

Other Vocational Areas. Measures of the attitudes toward other vocational areas were ascertained in order to make an eyeball comparison of these areas

with the area of applied biological and agricultural occupations. While some differences in attitude were observed, the variances in attitudes would have easily been estimated to have been greater when the dearth of programs in applied biological and agricultural occupations in the metropolitan area of Chicago was considered.

Administrators held favorable attitudes toward the area of home economics occupations. They felt that enough students would be available and interested in such programs and that home economics courses would improve the overall high school program. Whether or not the administrators have a clear conception of gainful home economics was not known to the researchers.

In an industrial city such as Chicago it would appear evident that administrators would have a favorable attitude toward courses in industrial occupations. This assumption was supported by the data collected. It was noted that some administrators would not look into offering programs in industrial occupations even if the needs for such a program were ascertained. Thus, it would appear that some administrators may be anti-vocational education in their schools.

Only a small amount of data was collected for the vocational areas of business occupations, health occupations, and personal and public service occupations. Administrators in the metropolitan area of Chicago reported favorable attitudes toward each of these areas of vocational education. In regard to the new area of health occupations, administrators felt that it would be appropriate for their school to offer programs. The extent to which they were willing to support this program was not ascertained.

Vocational Education. A concern of the researchers was the attitude that administrators held toward the total area of vocational education. It was

assumed that administrators would not hold a better attitude toward the vocational area of applied biological and agricultural occupations than they held toward the total area of vocational education. Hence, the probability of adding new electives in the applied biological area is most likely to be no greater than that of any other vocational area for which equal need is shown.

The respondents had a favorable attitude toward vocational education, indicating that vocational education would (or does) work in their school and that vocational education is necessary in addition to general education. The relative importance that administrators placed on general education in contrast to vocational education was not ascertained.

The addition of any course is either an addition to a budget or must replace a course previously taught. In addition, new courses, especially vocational courses, require more equipment than typical classroom furniture; thus the researchers wished to find whether administrators felt that funds would be limited and if their communities would be displeased with the school officials if additional funds were spent on vocational-type education. A majority of the respondents indicated that funds would not be limiting and that their communities would not be displeased if more money were spent on vocational education nor did they feel that additional electives would increase the student-teacher ratio excessively. Hence, it appeared that if a need can be shown for a particular elective, most schools would be able to include such an elective without placing undue stress on their budgets.

Conclusions

Conclusions drawn from the data relate specifically to program implementation. Thus, only those conclusions that were considered to be of special

significance to applied biological and agricultural occupations program development are reported here. These conclusions are:

1. Schools in the metropolitan area of Chicago can be identified in which the administrative staff are receptive to the development of programs in applied biological and agricultural occupations.

2. Administrators in metropolitan areas of Chicago have a generally positive attitude toward the development of programs in agriculture but appear to have a misconception of the total scope of the area. Thus, the administrators will need to be enlightened by the program developer concerning the nature of these programs.

3. In contrast with other areas of vocational education, administrators do not perceive that enough students would be interested in a program in applied biological and agricultural occupations to merit offering such programs. Thus, it will be essential for the program developer to collect data regarding student interest.

4. Occupational preparation in specific areas such as lawn care and maintenance are more acceptable to the administrators in the metropolitan area of Chicago than is the total concept of applied biological and agricultural occupations.

5. In some school districts, courses in applied biological and agricultural occupations could be staffed by realloting staff members who are already in the school system.

6. Qualified staff must be provided if a majority of the school districts are to implement programs in applied biological and agricultural occupations.

7. School officials have a positive attitude toward the value of programs in applied biological and agricultural occupations.

8. Additional information regarding program development in applied biological and agricultural occupations should be supplied to the administrators in the metropolitan area of Chicago.

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BIBLIOGRAPHY

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APPENDIX II-A

OPINIONNAIRE FOR ADMINISTRATORS

OPINIONNAIRE FOR ADMINISTRATORS

Name _____ Age _____ Sex _____

Home Address _____ Telephone _____

Present Position _____ Years in Position _____

School or School District _____ Location _____

Directions. Please encircle the response which best describes your feeling towards each statement.

Code. SA = Strongly Agree U = Undecided DA = Disagree
A = Agree SDA = Strongly Disagree

	SA	A	U	DA	SDA
1. Programs in Applied Biological and Agricultural Occupations would be of great value in this school.	1	2	3	4	5
2. I would oppose the offering of courses related to Agricultural Occupations in this school.	1	2	3	4	5
3. Administering a program in Agriculturally Related Occupations would fascinate me.	1	2	3	4	5
4. Under no condition would I get involved in programs in Applied Biological and Agricultural Occupations.	1	2	3	4	5
5. If additional staff were provided, I would be willing to promote programs in Applied Biological and Agricultural Occupations.	1	2	3	4	5
6. Offering training in occupations related to health would be appropriate in this school system.	1	2	3	4	5
7. If enough students requested to participate in Agriculturally Related Occupations Programs I would look into the possibility of including it in the curriculum.	1	2	3	4	5
8. With some effort it is possible to make staff reallotments in order to provide a teacher for elective courses in Agriculturally Related Occupations.	1	2	3	4	5
9. There are enough interested students in this school system to warrant initiating a program in Home Economics Occupations.	1	2	3	4	5
10. If the needs are ascertained for Industrial Occupations in this school I would be willing to look into the possibility of including it in the curriculum.	1	2	3	4	5
11. My present staff cannot be readjusted in order to offer courses in Applied Biological and Agricultural Occupations.	1	2	3	4	5

		SA	A	U	DA	SDA
12.	Exploratory type electives are more valuable at this level than occupationally directed courses.	1	2	3	4	5
13.	A program in Agriculturally Related Occupations would help improve the overall high school program.	1	2	3	4	5
14.	This school system could provide the student with training in Personal and Public Service, such as policemen, social workers, and firemen.	1	2	3	4	5
15.	A program in some aspect of Home Economics Occupations helps to improve an overall high school program.	1	2	3	4	5
16.	Programs in Vocational Occupations have little or no effect on an overall high school program.	1	2	3	4	5
17.	Programs related to Applied Biological and Agricultural Occupations are a definite threat to the overall high school program.	1	2	3	4	5
18.	Properly planned and administered courses in Applied Biological and Agricultural Occupations could help in making high school learning more practical.	1	2	3	4	5
19.	A program in Agriculturally Related Occupations could be used only if the school employs qualified teachers, or retrains present teachers.	1	2	3	4	5
20.	Courses related to Office Occupations, such as stenography and secretarial work, would consume too much of the student's time which is needed for other academic areas.	1	2	3	4	5
21.	We have sufficient numbers of qualified staff to teach courses in Home Economics Occupations.	1	2	3	4	5
22.	We have a sufficient number of qualified staff members to successfully organize and teach courses in Industrial Arts Occupations.	1	2	3	4	5
23.	I will be willing to approve study leave for any of the staff members who desire additional education to prepare themselves to teach courses in Applied Biological and Agricultural Occupations.	1	2	3	4	5
24.	A program in Agriculturally Related Occupations would help many students become socially adjusted and useful citizens.	1	2	3	4	5
25.	Vocational programs designed to prepare students for occupations is a marvelous idea, but it probably would not work in this school system.	1	2	3	4	5
26.	Courses related to lawn care and maintenance would fulfill a need in this school and I would do everything possible to initiate them.	1	2	3	4	5

		SA	A	U	DA	SDA
27.	Students in general are not interested in agriculturally related subjects; therefore, this program would probably fail due to inadequate student participation.	1	2	3	4	5
28.	Training in the marketing and distribution of products such as fruits and vegetables could be taught successfully in this school system.	1	2	3	4	5
29.	Programs in Applied Biological Occupations would complement and reinforce subjects rather than compete with them.	1	2	3	4	5
30.	Courses in Applied Biological and Agricultural Occupations would have many desirable features, but the disadvantages outnumber the advantages.	1	2	3	4	5
31.	I would recommend a program in Agriculturally Related Occupations to my superintendent or to the board of education if the need for such a program is ascertained.	1	2	3	4	5
32.	The cost of administering programs in Vocational Education are negligible when compared with the returns from the salable skills that the students would develop.	1	2	3	4	5
33.	Programs in Vocational Education are not necessary since the students are learning enough about vocational occupations in the general courses.	1	2	3	4	5
34.	Limited funds for textbooks, supplies and equipment will not permit the inclusion of additional electives in the curriculum.	1	2	3	4	5
35.	Our community would frown on spending additional money on vocational-type education.	1	2	3	4	5
36.	Additional electives would increase the student-teacher ratio in the required subjects which is already too high.	1	2	3	4	5
37.	The only way I could allow for additional electives would be to eliminate some of the present ones and this would not be accepted.	1	2	3	4	5
38.	I would like more information regarding program development in Home Economics Education.	1	2	3	4	5
39.	I would like more information regarding program development in Industrial Arts Education.	1	2	3	4	5
40.	I would like more information regarding program development in Distributive Occupations.	1	2	3	4	5
41.	I would like more information regarding program development in Applied Biological and Agricultural Occupations.	1	2	3	4	5

APPENDIX II-B

COVER LETTER

The Vocational and Technical Education staff at the University of Illinois at Urbana-Champaign has initiated a project to determine the attitude of Administrators in the metropolitan area of Chicago towards Applied Biological and Agricultural Occupations and other areas of Vocational Education. Vocaional Education in Applied Biological and Agricultural Occupations is comprised of the group of related courses or units of subject matter which are organized for carrying on learning experiences concerned with preparation for or upgrading in occupations requiring knowledge and skills in agricultural subjects. Such occupations include: ornamental horticulture, forestry, greenhouse production, small animal production, animal care, lawn care and management, fruit and vegetable production, small engine care and maintenance, and home gardening.

We are asking Administrators in the representative schools to react to items on the attached opinionnaire in order to ascertain their opinions regarding their attitude towards offering various types of vocational programs with emphasis on Applied Biological and Agricultural Occupations. You may express your opinion by encircling the most appropriate response to each statement on the opinionnaire. We feel that the results of our study will be of interest to you and your school. Kindly return the completed opinionnaire in the enclosed envelope.

Sincerely,

Hollie B. Thomas, Director
Metropolitan Agriculture Programs
359 Education Building

Ali Ammadi, Staff
Franklin Jackson, Staff
William Lundell, Staff
Art Neavill, Staff

HBT:nf
Enclosures

APPENDIX II-C

FOLLOW-UP LETTER

April 13, 1971

Dear Sir:

A few weeks ago we sent you an opinionnaire requesting your response to a number of questions. We have not received your completed opinionnaire; perhaps it has been lost in the mail or misplaced.

In case the first opinionnaire and information sheet were lost or misplaced, we are enclosing an additional copy, hoping that you will complete and return it to us. If you have completed and mailed the opinionnaire within the last three days, please disregard this letter.

May we thank you for your cooperation.

Sincerely,

Hollie B. Thomas, Director
Metropolitan Agriculture Programs
359 Education Building

Ali Ammadi, Staff
Franklin Jackson, Staff
William Lundell, Staff
Art Neavill, Staff

HBT:nf
Enclosures